

FIGURE 1A

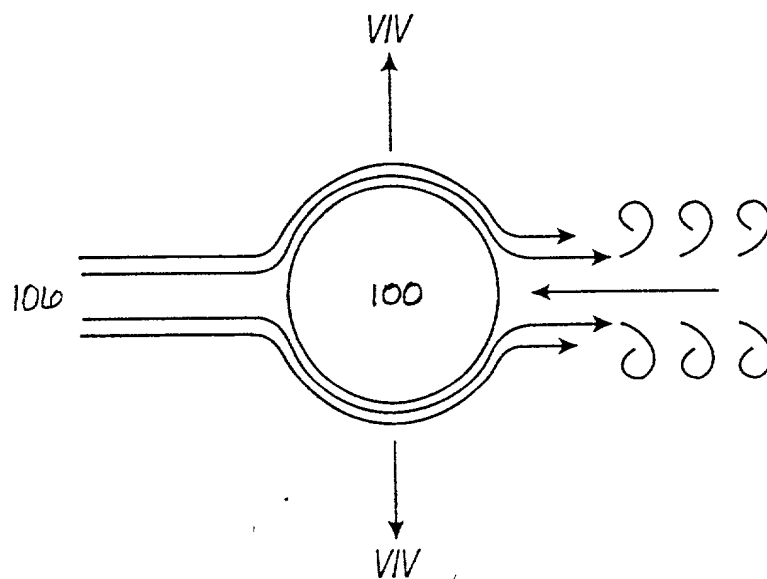


FIGURE 1B

FIG. 2A

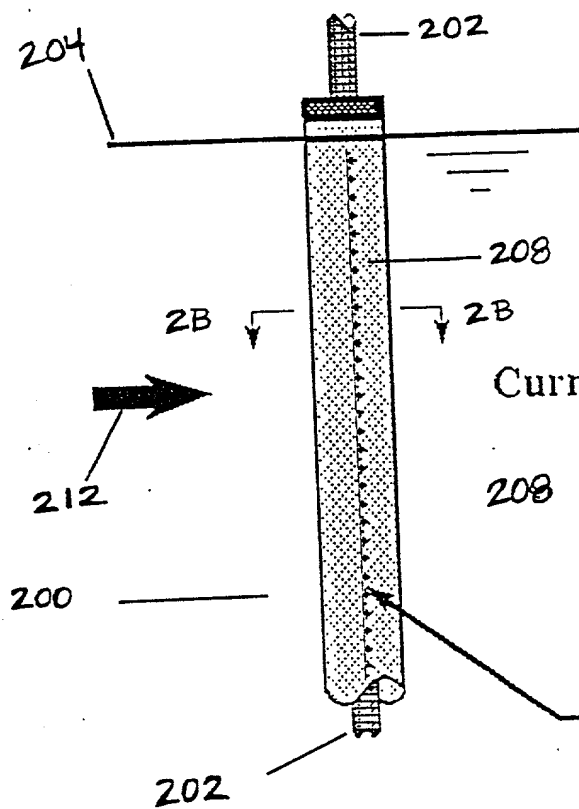


FIGURE 2A

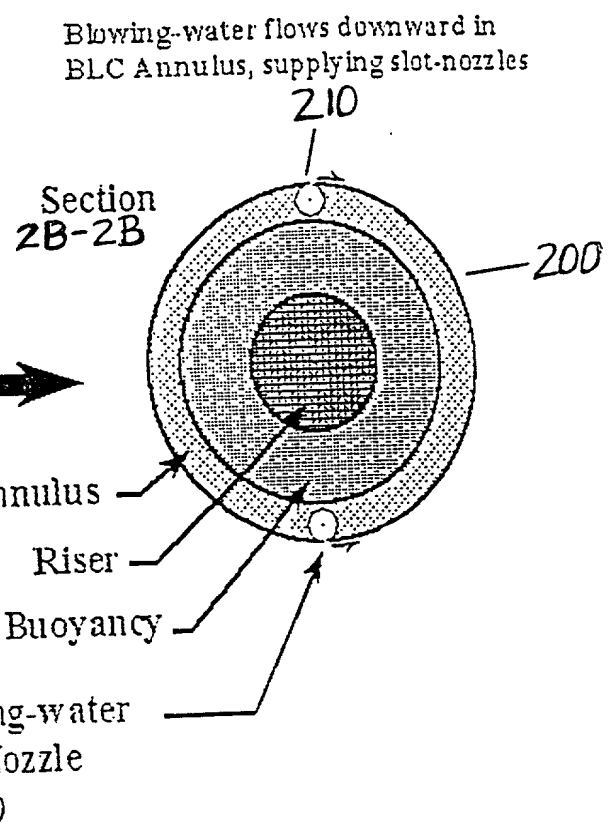


FIGURE 2B

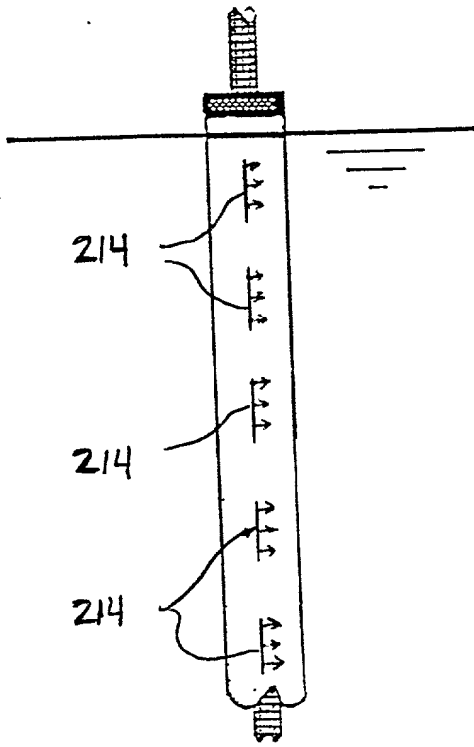


FIGURE 2C

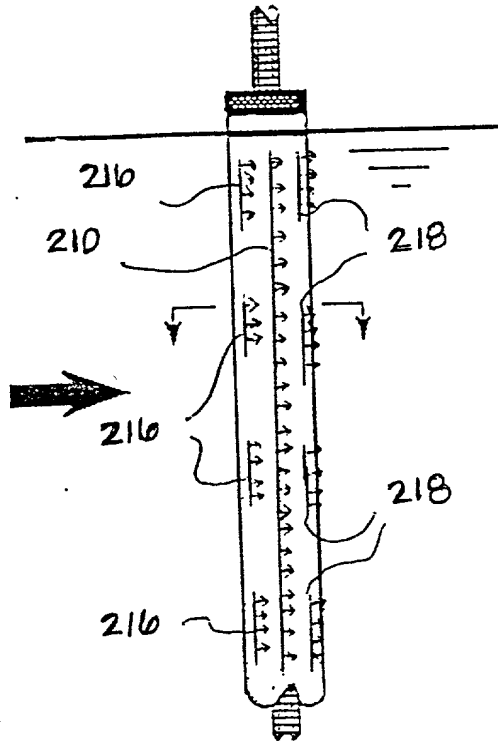


FIGURE 2D

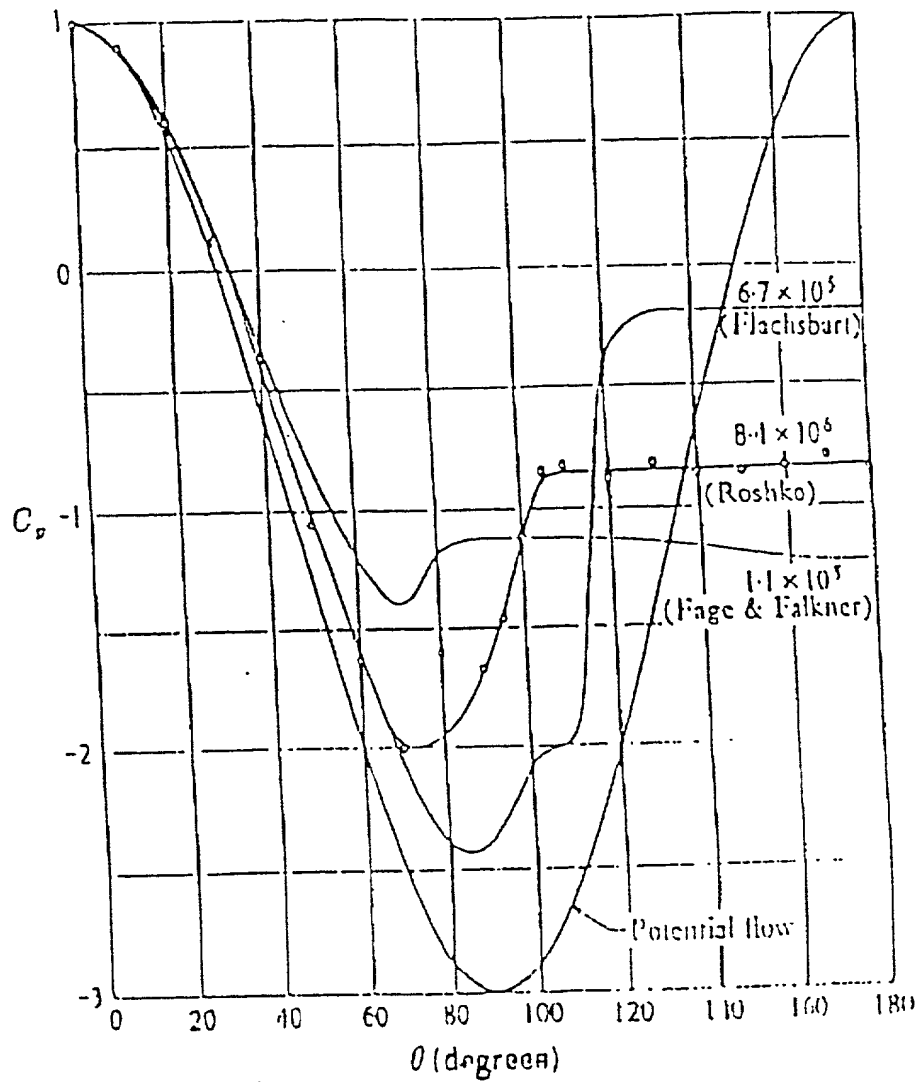


FIG. 3 Pressure Distribution on a circular cylinder

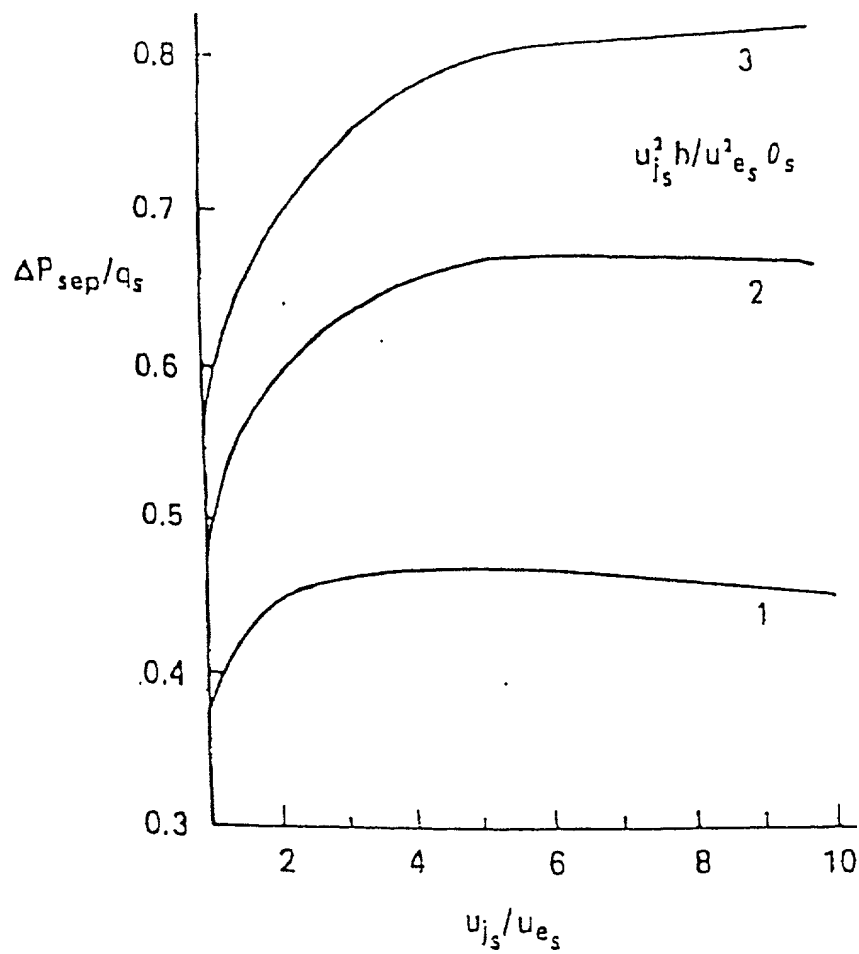


FIG. 4. Pressure rise to separation
(From Hubbart & Bangert, 1970).

104090" 6036/260

FIG. 5 Drilling Riser BLC System
Preliminary Characteristics Estimates

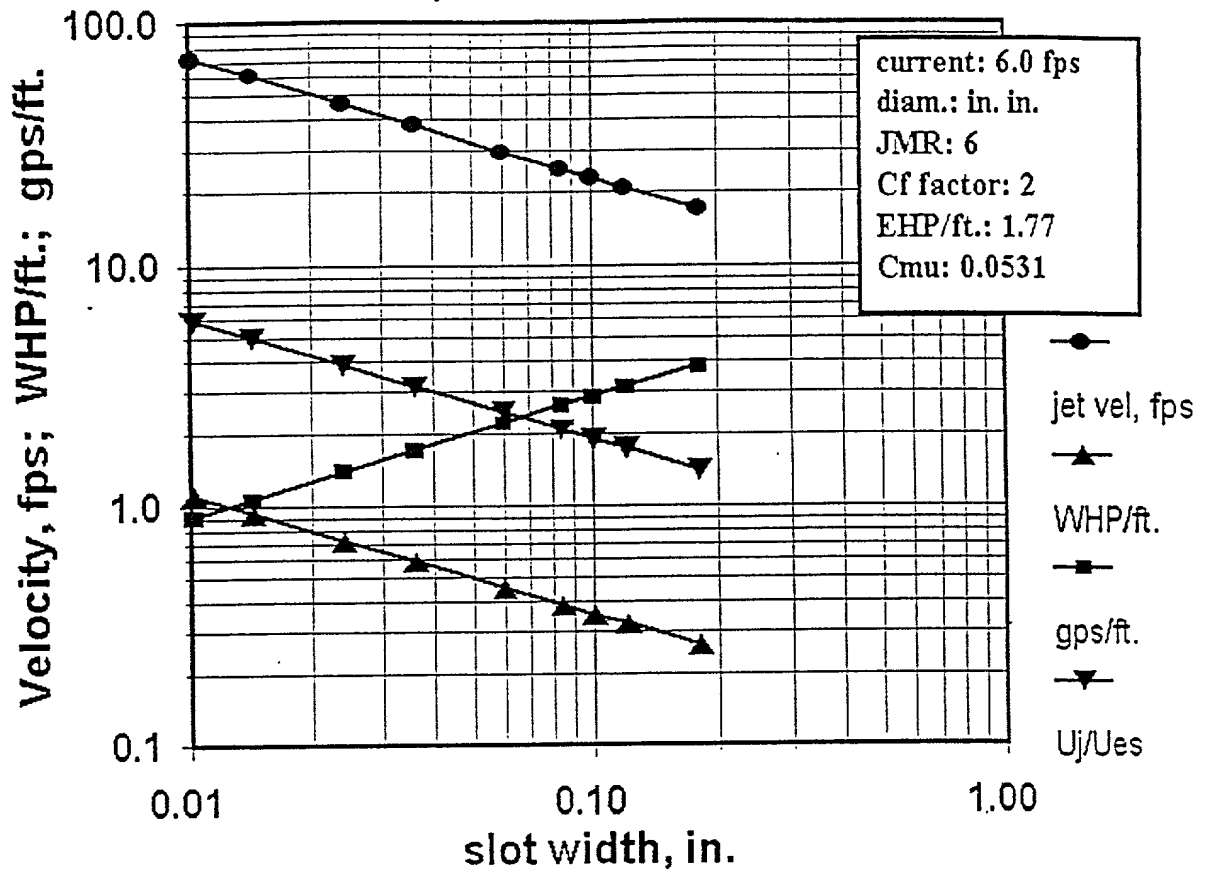


FIG. 6A

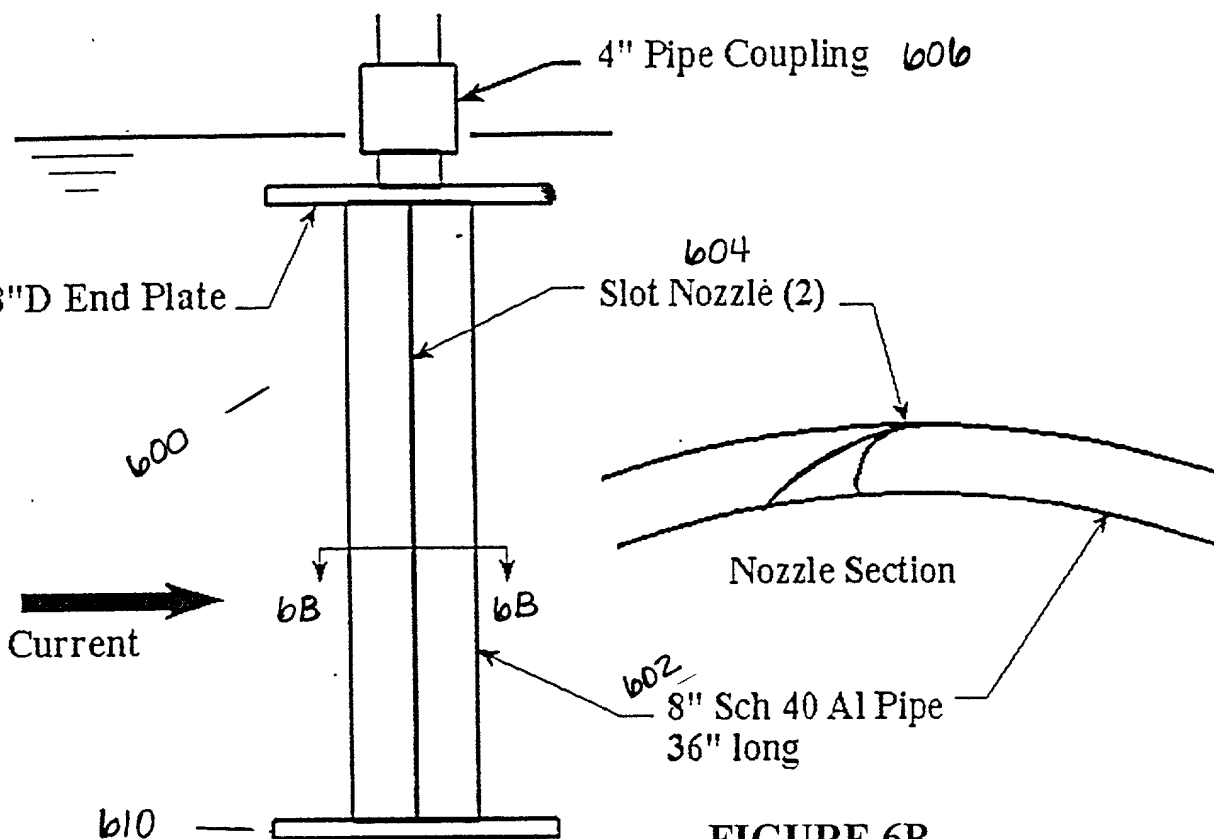
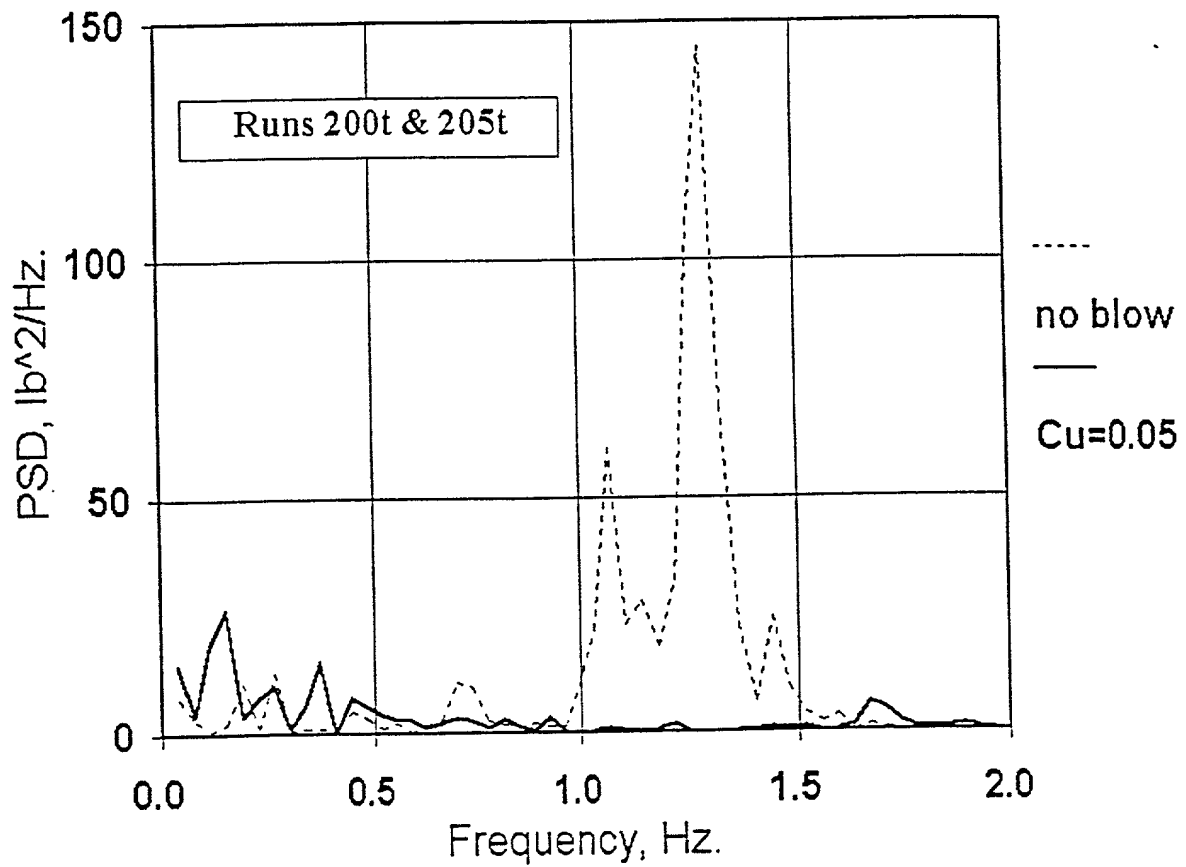


FIGURE 6A

FIGURE 6B

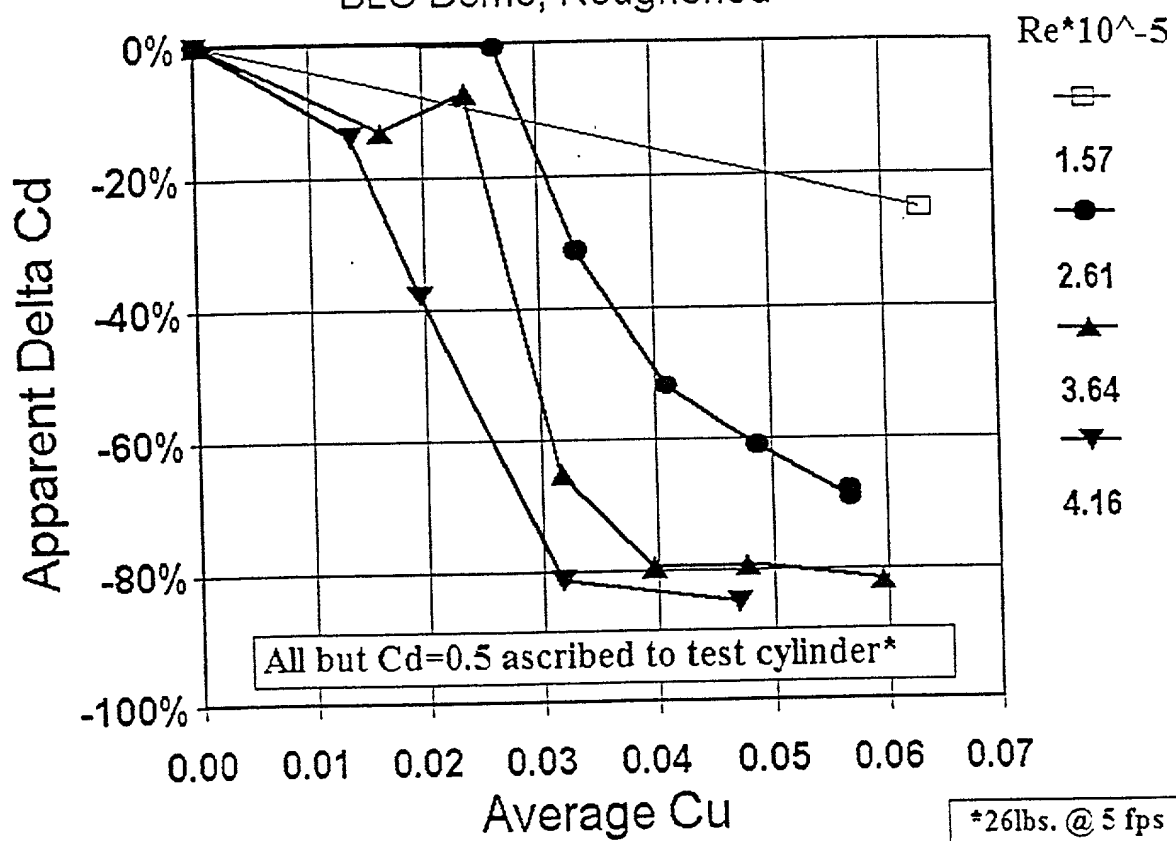
FIGURE 7. VIV Lateral Force PSD; 5 fps



FOUO 6026/260

FIGURE 8. Apparent Delta Cd vs Cu & Re

BLC Demo, Roughened



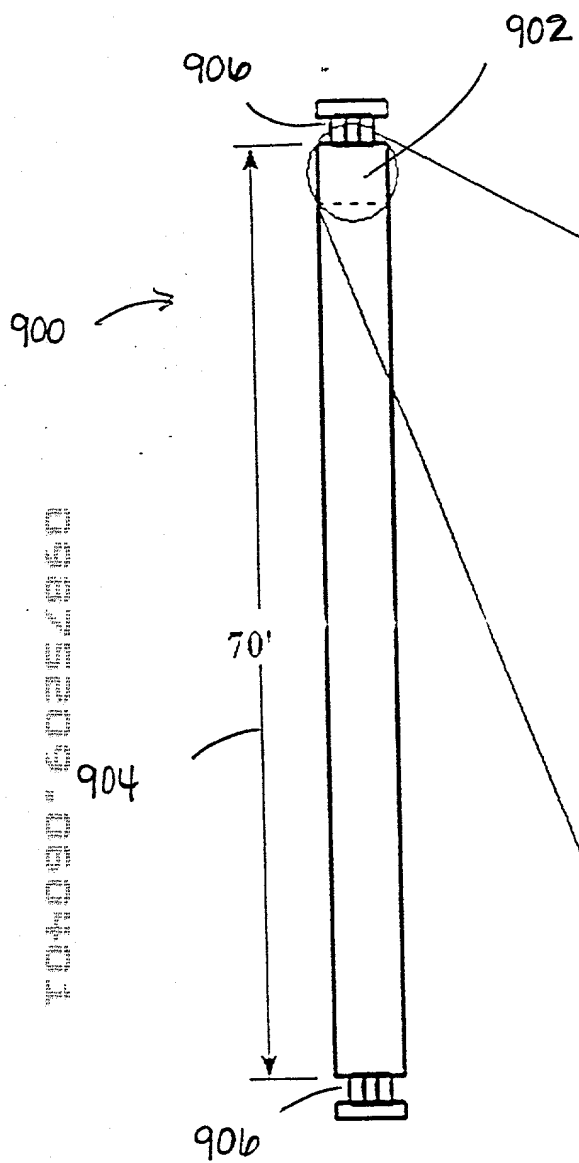


FIGURE 9A

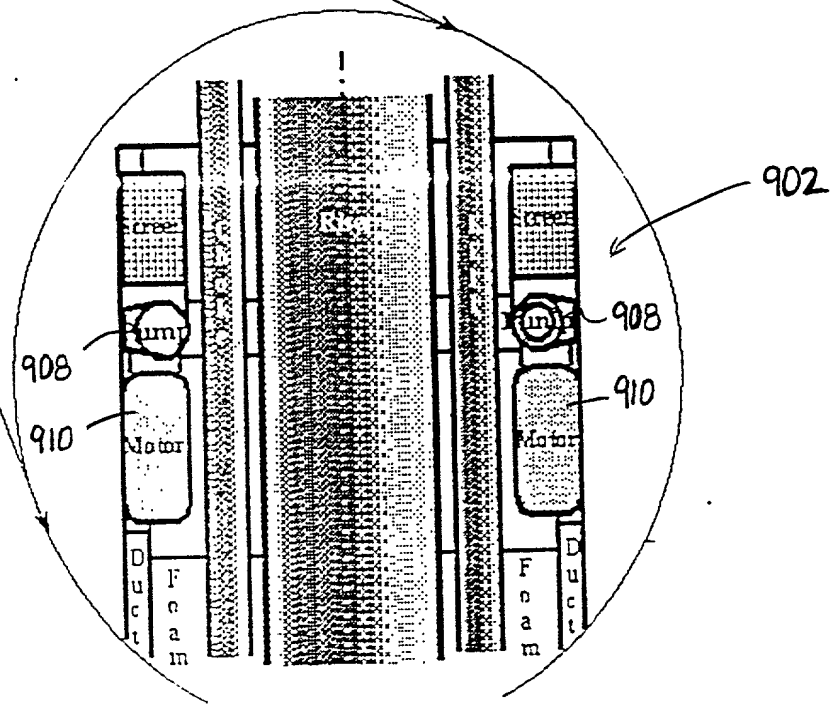


FIGURE 9B

104090 6026/250

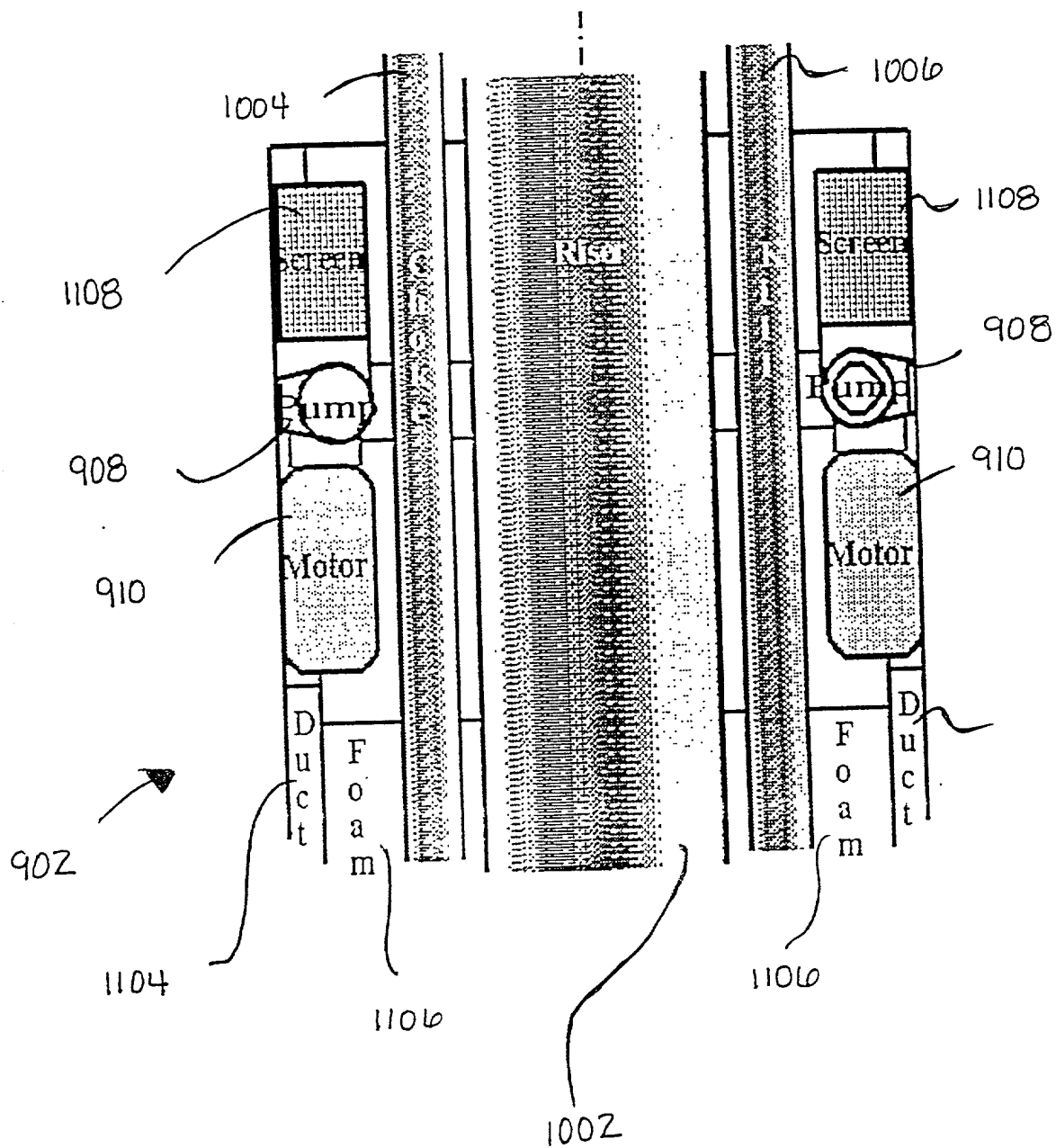


FIGURE 10

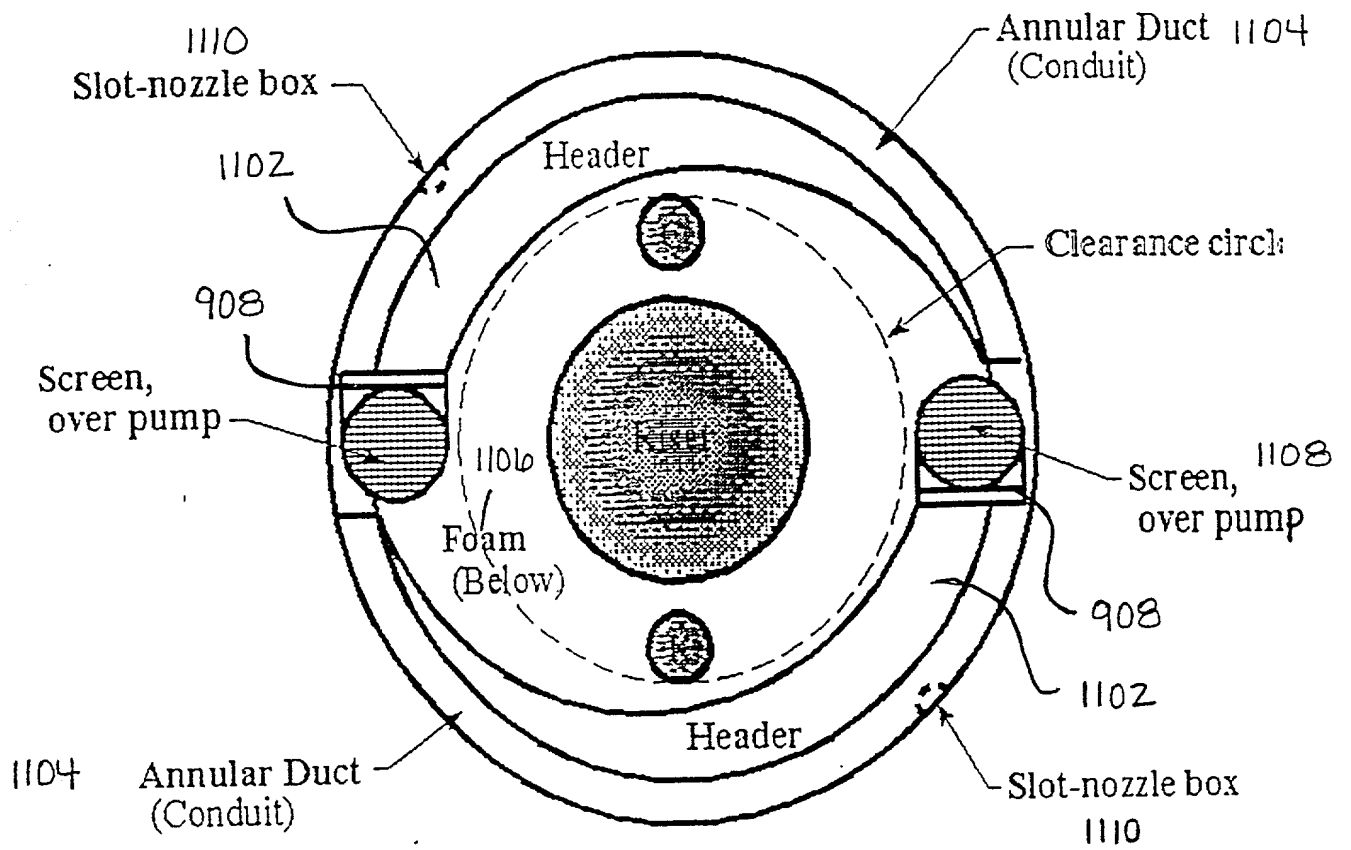


FIGURE 11

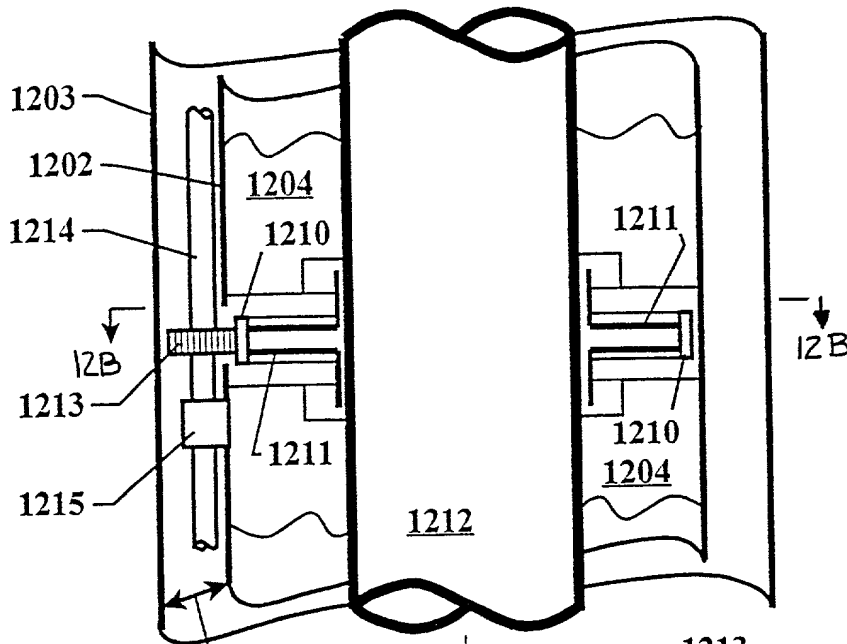


FIGURE 12A

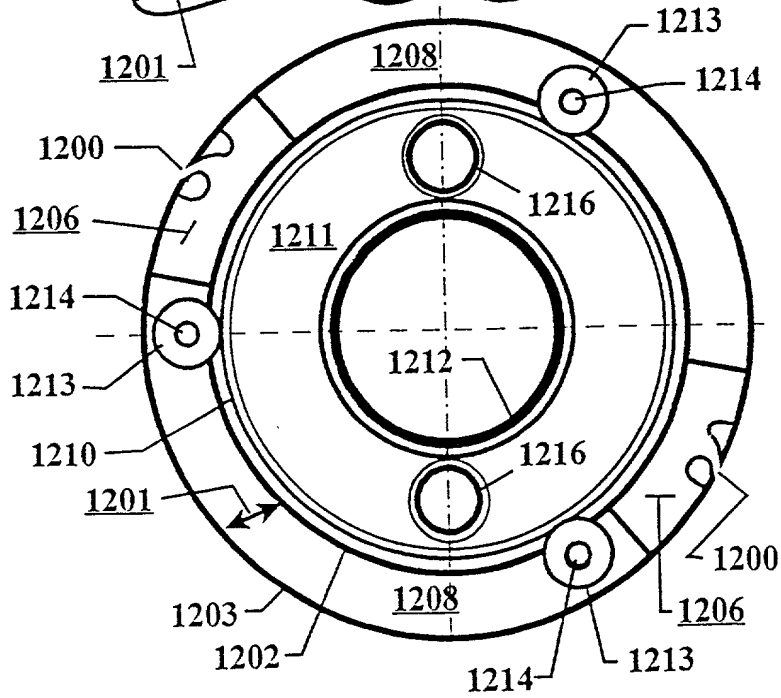


FIGURE 12B

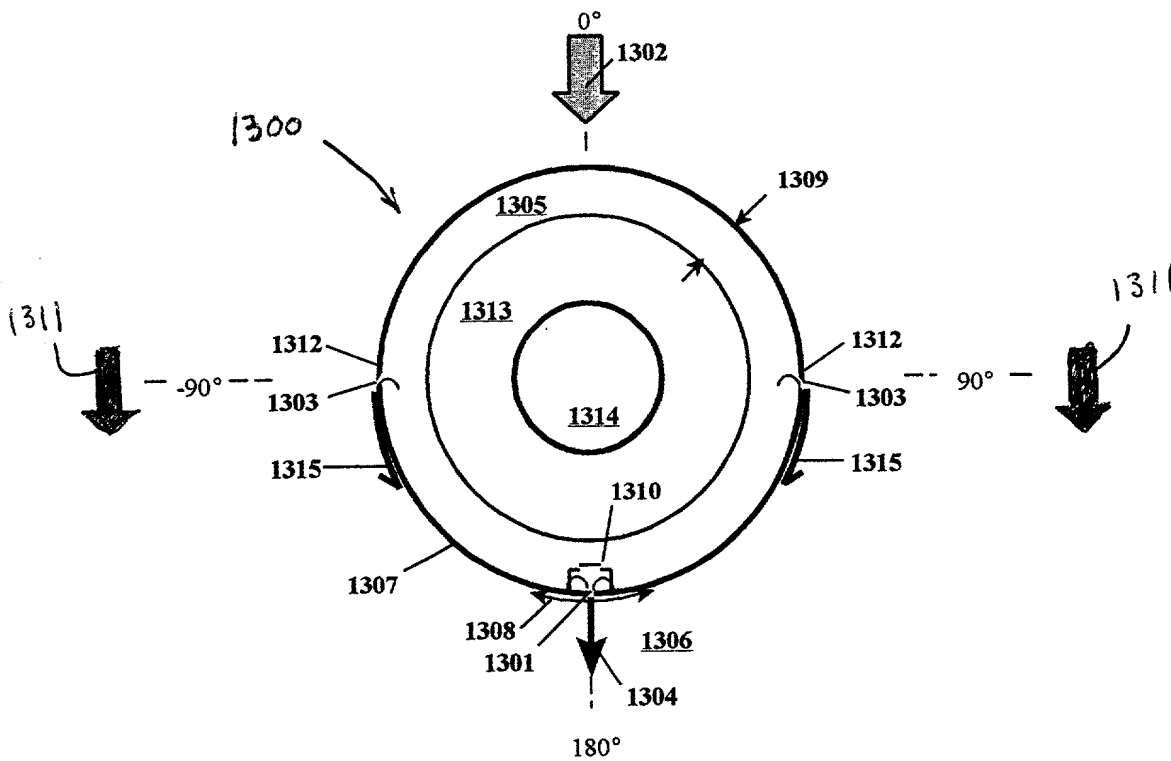


Figure 13

FIG. 14A

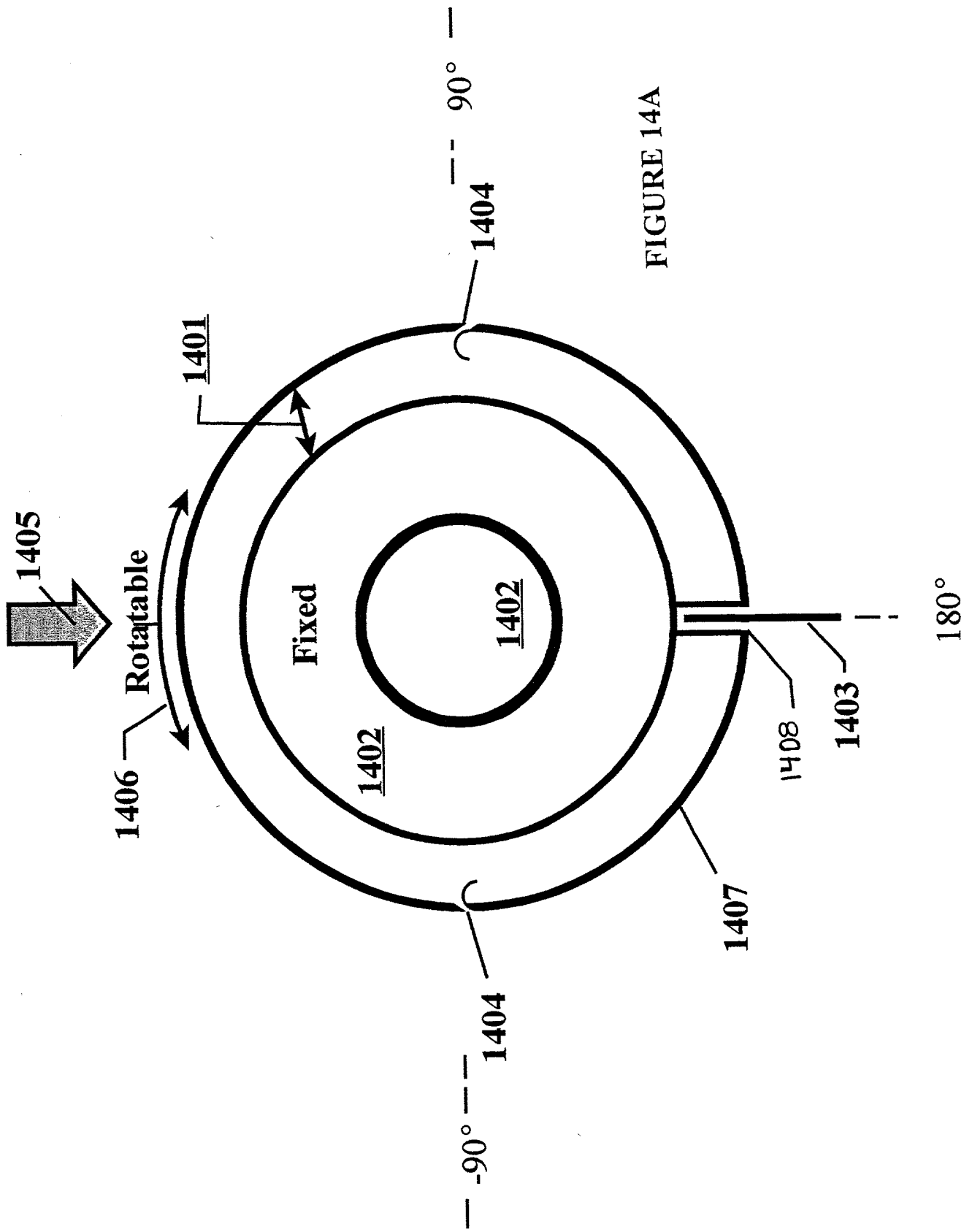


FIGURE 14A

FIGURE 14B

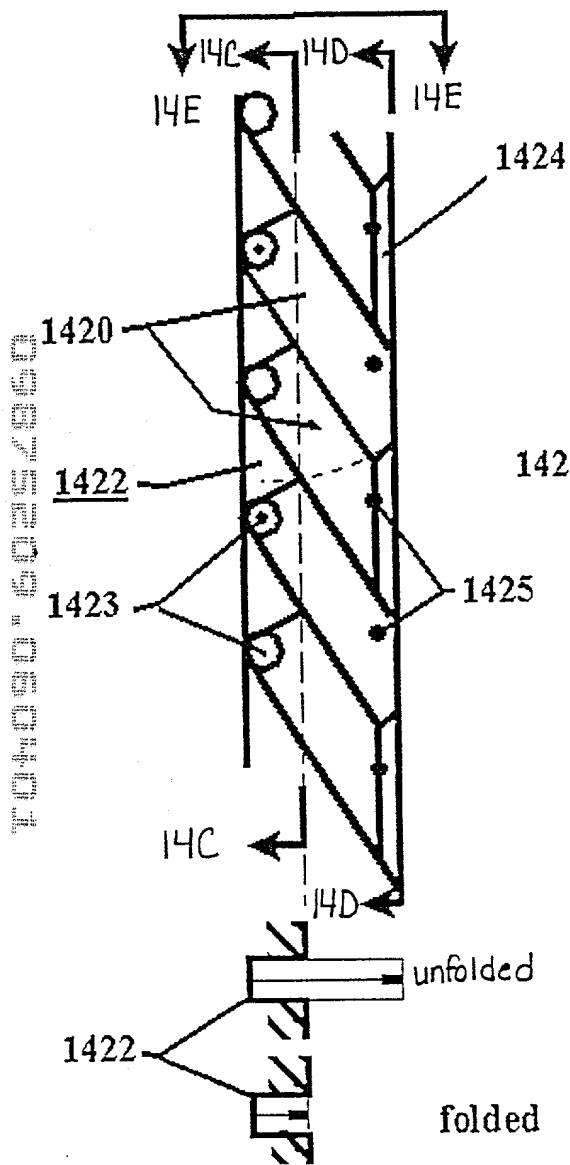


FIGURE 14E

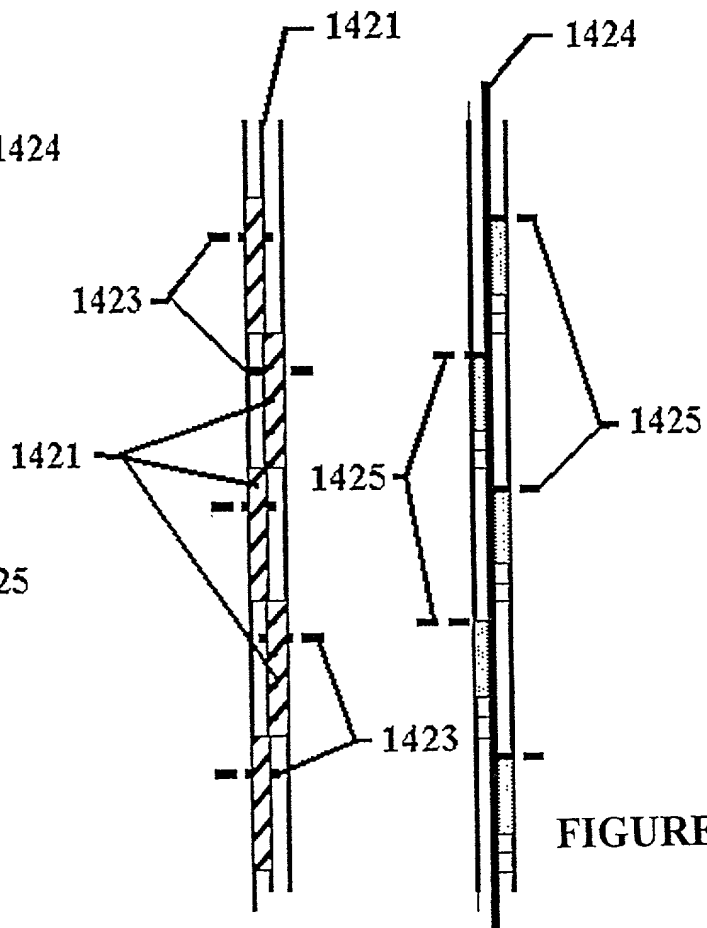


FIGURE 14C

FIGURE 14D

Folding Tail-Fin
for Riser BLC and
similar applications

104092-6026/260

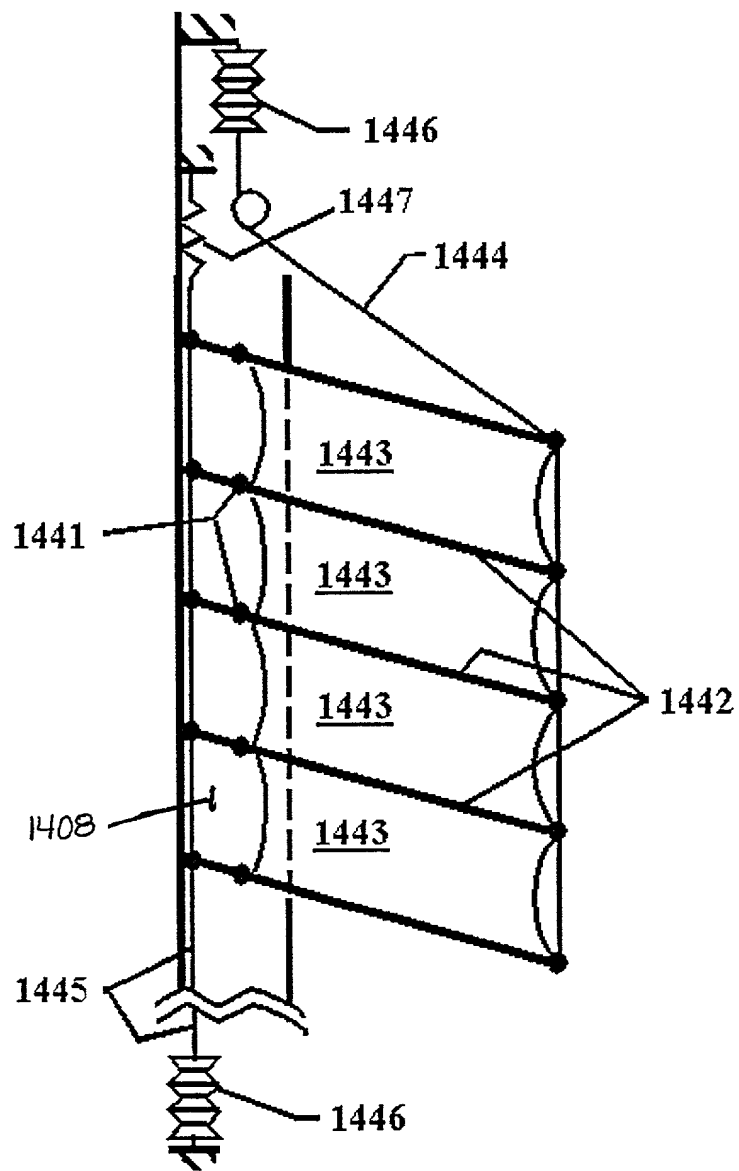


FIGURE 14F

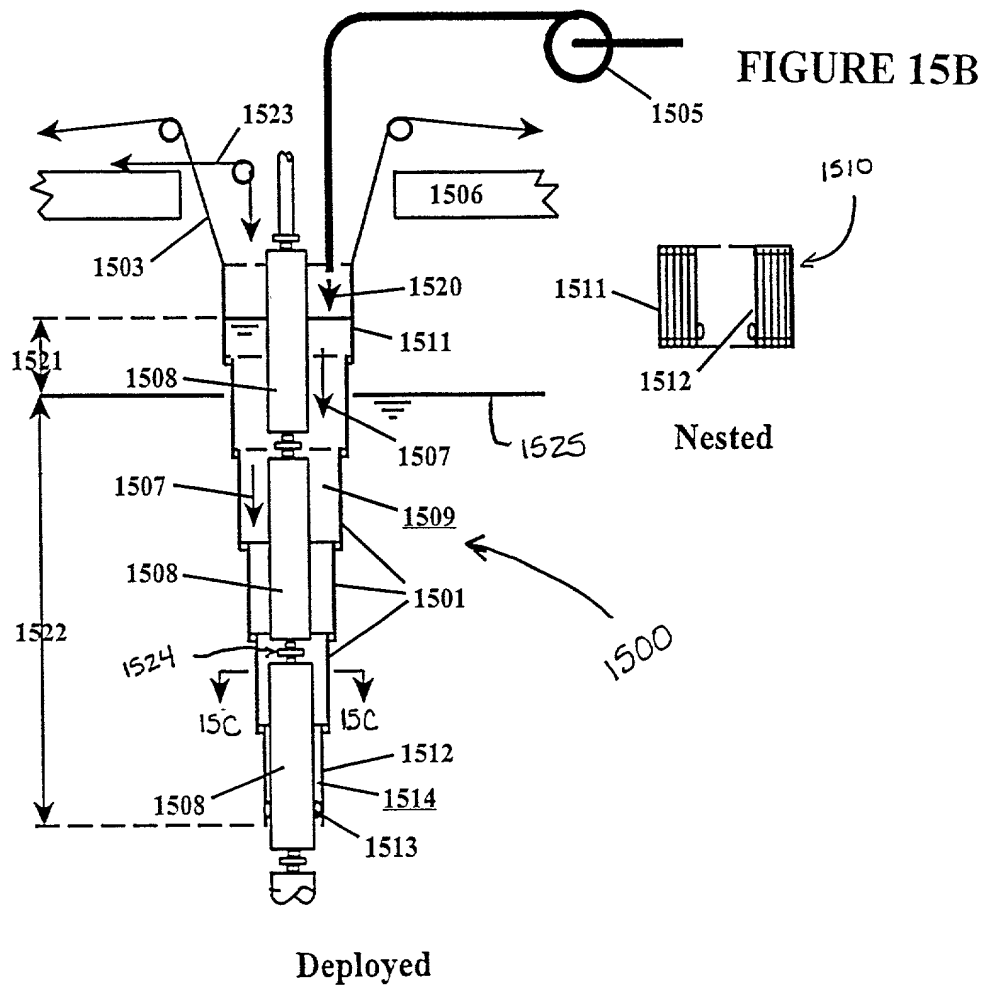


FIGURE 15A

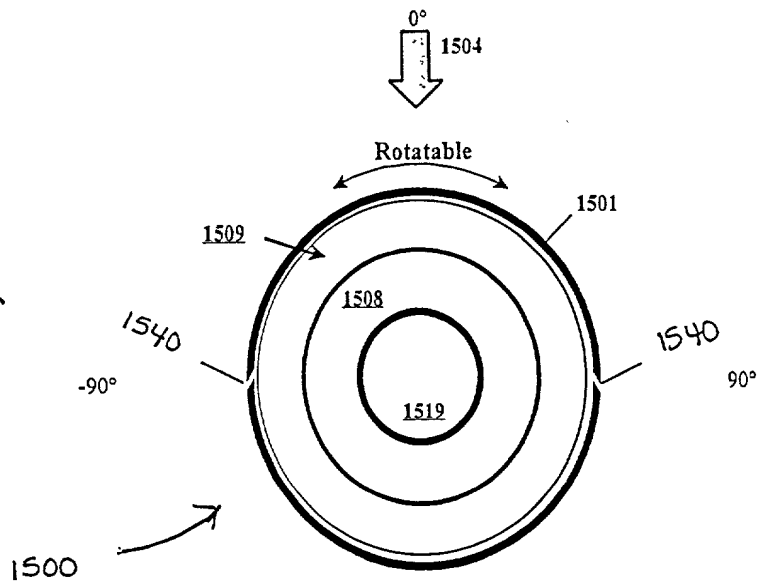


FIG. 15C Drilling Riser BLC, Telescoping Sheath Section

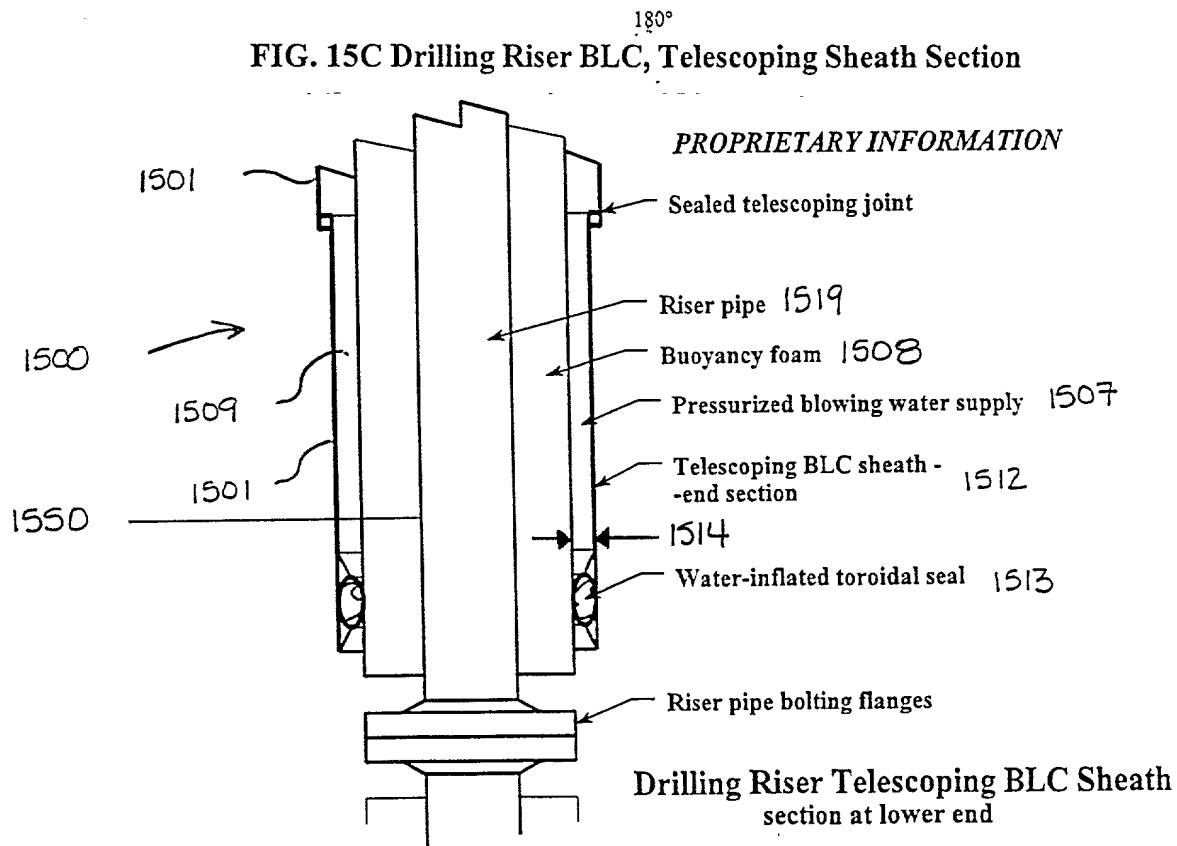


FIG. 15D Drilling Riser BLC, Telescoping Sheath Lower End

The schematic diagram illustrates a vertical well system 1600. A central vertical shaft contains several internal tubes or liners labeled 1601. At the top, a horizontal pipe 1610 connects to a pump or motor assembly 1608, which has an input arrow pointing towards it. This assembly is connected to a rectangular component 1620. On the left side, another rectangular component is shown with an arrow pointing away from the shaft. The main shaft features various sections defined by dashed lines and arrows indicating flow directions. Section 1605 is at the top, followed by section 1625. Below these, a horizontal line marks a transition. Further down, section 1606 is indicated by a long double-headed arrow. Near the bottom, section 16D is labeled with an arrow pointing to a specific part of the shaft. Other labels include 1607, 1609, 1611, 1615, 16B, 16C, and 1627, each pointing to different structural elements or flow points within the system.

1600

